9

- an illumination means to highlight imperfections on the writing surface.
- a microprocessor means to compare the serial images of the writing surface for measuring positional changes of the device,
- a data storage means for input into and/or output from the microprocessor means, an energy source to power the illumination, camera, data storage, and microprocessor means; and
- a photodetector to determine a reduction in illumination from the illumination means, and said photodetector also sensing an impending loss of positional data from a reduction in illumination due to lifting of the writing device too far above the writing surface.
- 19. A handheld communications device that is used to 15 create a written document and to create digital copy of said written document comprising;
  - a writing means;
  - a position-sensing means that does not require a special writing surface for creation of the digital copy;
  - a detection means for identifying writing positional changes that are due to character generation on the writing surface;
  - an illumination means to highlight imperfections on the  $_{25}$  writing surface;
  - a photodetector to determine a reduction in illumination from the illumination means, and said photodector also sensing an impending loss of positional data from a

10

- reduction in illumination due to lifting of the writing device too far above the writing surface; and
- a digital data transmission means, said digital transmission means also having the ability to receive digital data from an external digital device.
- **20.** A handheld communications device that is used to create a written document and to create a digital copy of said written document comprising;
  - a writing means;
  - a position-sensing means that does not require a special writing surface for creation of the digital copy;
  - a detection means for identifying writing device positional changes that are due to character generation on the writing surface; and
  - an illumination means to highlight imperfections on the writing surface;
  - a photodetector to determine a reduction in illumination from the illumination means, and said photodector also sensing an impending loss of positional data from a reduction in illumination due to lifting of the writing device too far above the writing surface; and
  - a digital data transmission means selected from the wireless group comprising infrared, radio frequency, laser, ultrasound, or digital cellular telephony, wherein digital data output is sent to digital components that are part of the device.

\* \* \* \* \*